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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,391	05/18/2005	Jeffrey M Besterman	02-1201-C1	4423
<div>20306 7590 08/09/2007</div> <div>MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP</div> <div>300 S. WACKER DRIVE</div> <div>32ND FLOOR</div> <div>CHICAGO, IL 60606</div>				
			<div>EXAMINER</div> <div>COPPINS, JANET L</div>	
			<div>ART UNIT</div> <div>1626</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE</div> <div>08/09/2007</div>	<div>DELIVERY MODE</div> <div>PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/535,391

Applicant(s)

BESTERMAN ET AL.

Examiner

Janet L. Coppins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 and 9 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7, 8, and 10-31 is/are allowed.
- 6) ☒ Claim(s) 32 is/are rejected.
- 7) ☐ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. Claims 1-32 are pending in the instant application.

Priority

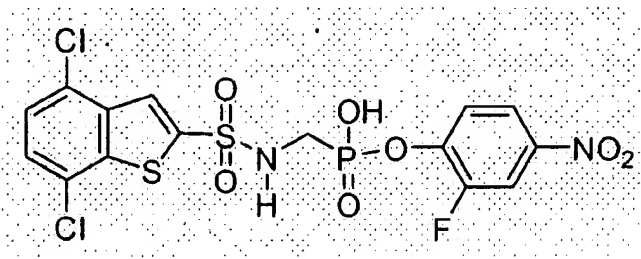
2. This application is a 371 of PCT/US03/36929, filed November 19, 2003.

Information Disclosure Statement

3. Applicants' Information Disclosure Statement, filed May 18, 2005, has been considered by the Examiner. Please refer to the signed copy of Applicants' PTO-1449 form, submitted herewith.

Lack of Unity

4. Applicants' election **with traverse** of Group VII, claims 7, 8, 10, 12-14 and 19-32, drawn to compounds, compositions and methods wherein R1 is benzothienyl and R6 does not contain a heterocyclic group, and specific compound 248 of Table 2:



in the response filed May 8, 2007, is acknowledged.

The Examiner notes with appreciation the cancellation of certain of the non-elected subject matter from the claims.

5. The traversal is on the ground(s) that the examiner has improperly grouped the compounds of the instant invention, and has not provided adequate reasons and/or examples to

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support a conclusion of patentable distinctness between the identified groups. This is not found persuasive because under PCT Rule 13.1:

The international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept.

Applicants' instant claims do not relate to a single invention, the application is drawn to multiple product inventions. The multiple inventions are not so linked as to form a single general inventive concept because according to PCT Rule 13.2:

Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

The claims herein lack unity of invention under PCT Rule 13.1 and 13.2, since the compounds defined in the claims lack a significant structural element qualifying as the special technical feature that defines a contribution over the prior art. The compounds claimed contain a sulfonamidophosphonate moiety in common, which does not define a contribution over the prior art (**variables excluded**), please refer to the Restriction Requirement of February 8, 2007. Attached to the instant office action is a copy of a reference that provides that the technical feature, which can be taken as a whole amongst all the alternatives, as depicted above, is not a 'special technical feature' as defined in PCT Rule 13.2, by failing to define a contribution over the prior art, as it was known in the art prior to the filing of the instant application. Please refer to the WO 2001/02411 document, which discloses the same "special technical feature," and supports the Examiner's position that Applicants' compounds fail to define a contribution over the prior art. Therefore, since the substituents on the technical feature vary extensively (for example "R6", can be alkyl, cycloalkyl, or heteroaryl, containing one or several heteroatoms

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several heteroatoms selected from N, O, or S) and when taken as a whole result in vastly different compounds and unity of inventions is considered to be lacking and restriction of the invention in accordance with the rules of unity of invention is considered to be proper and according to PCT Rule 3.3:

The determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim.

Therefore, since the claims do not contain a special technical feature, which defines a contribution over the prior art, the Examiner may determine within a single claim that the inventions are not so linked as to form a single general inventive concept.

Therefore, the finding of Lack of Unity is still deemed proper.

6. However, in view of a fair interpretation of the claims, the Examiner will redraw the groupings of the Lack of Unity as follows:

Group I, claims 1-6, drawn to compounds of the formula of claim 1.

Group II, claims 7-32 drawn to compounds of the formula of claim 7, and their compositions and methods of use.

Accordingly, newly redrawn "Group II" encompasses the elected original Group VII as well as Groups VIII-XI, and expands the scope of the elected subject matter.

Therefore, Group I, claims 1-6, are currently withdrawn, as directed to nonelected subject matter.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 32 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 32 employs the language "contacting a cell," rendering the claims indefinite, as it is unclear if the cell and the compound of claim 7 are physically contacted with each other *in vitro* in solution (and if so, what other ingredients are present), or if Applicants intend for the method to be carried out *in vitro*. If the latter is intended (i.e. a method of treating a human), the Examiner warns that Applicants' claim is directed to a method of inhibiting an enzyme (that is, a "mechanism" claim), rather than a method of treating an actual disease(s) of real world relevance, and an enablement issue will be presented. Clarification is requested.

Claim Objections

10. Claim 9 is currently objected to as containing nonelected subject matter.

Conclusion

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11. In conclusion, claims 1-32 are pending in the application, claims 1-6 are currently withdrawn from consideration, claim 32 stands rejected, claim 9 is objected to, and claims 7, 8, and 10-31 appear allowable over the prior art.

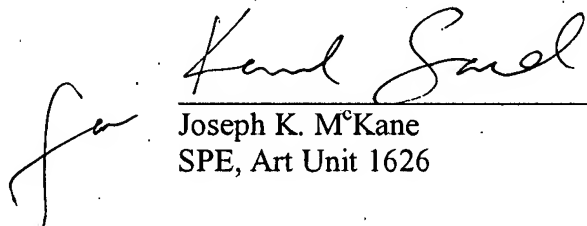
Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet L. Coppins whose telephone number is 571.272.0680. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on 571.272.0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Janet L. Coppins
August 4, 2007



Joseph K. McKane
SPE, Art Unit 1626